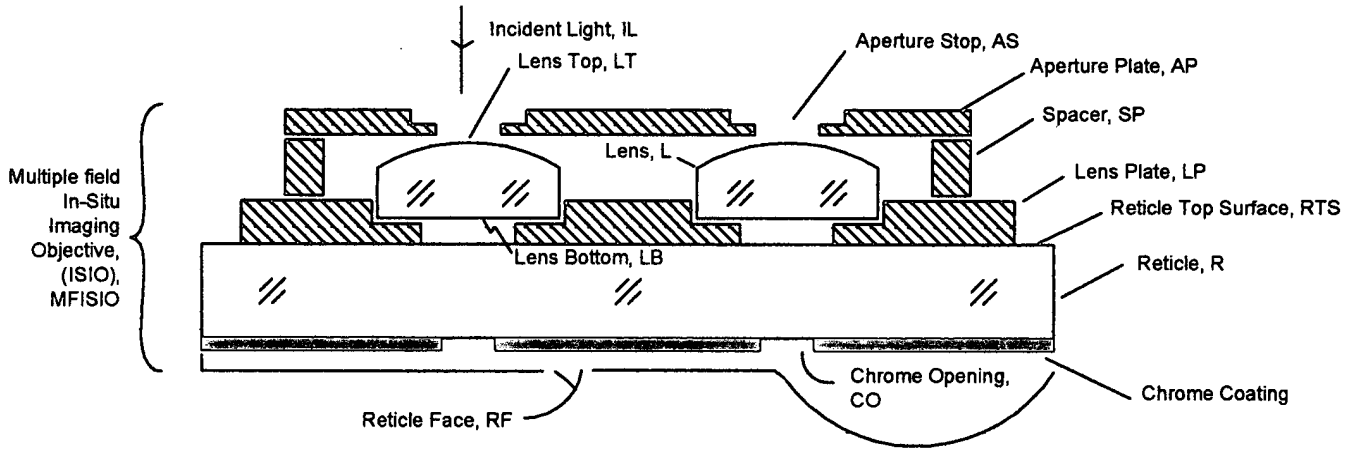
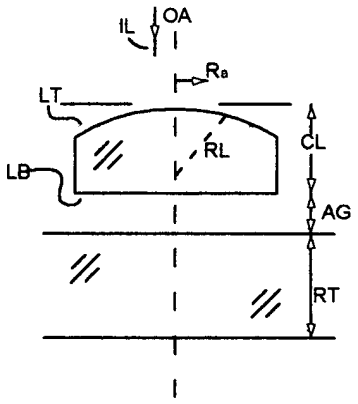


Figure 1



OA = Optical Axis
R_a = Radius of Aperture Stop
RL = Lens L Convex Radius
CL = Lens L Centerline Thickness
AG = Airgap
RT = Reticle Thickness

Figure 2

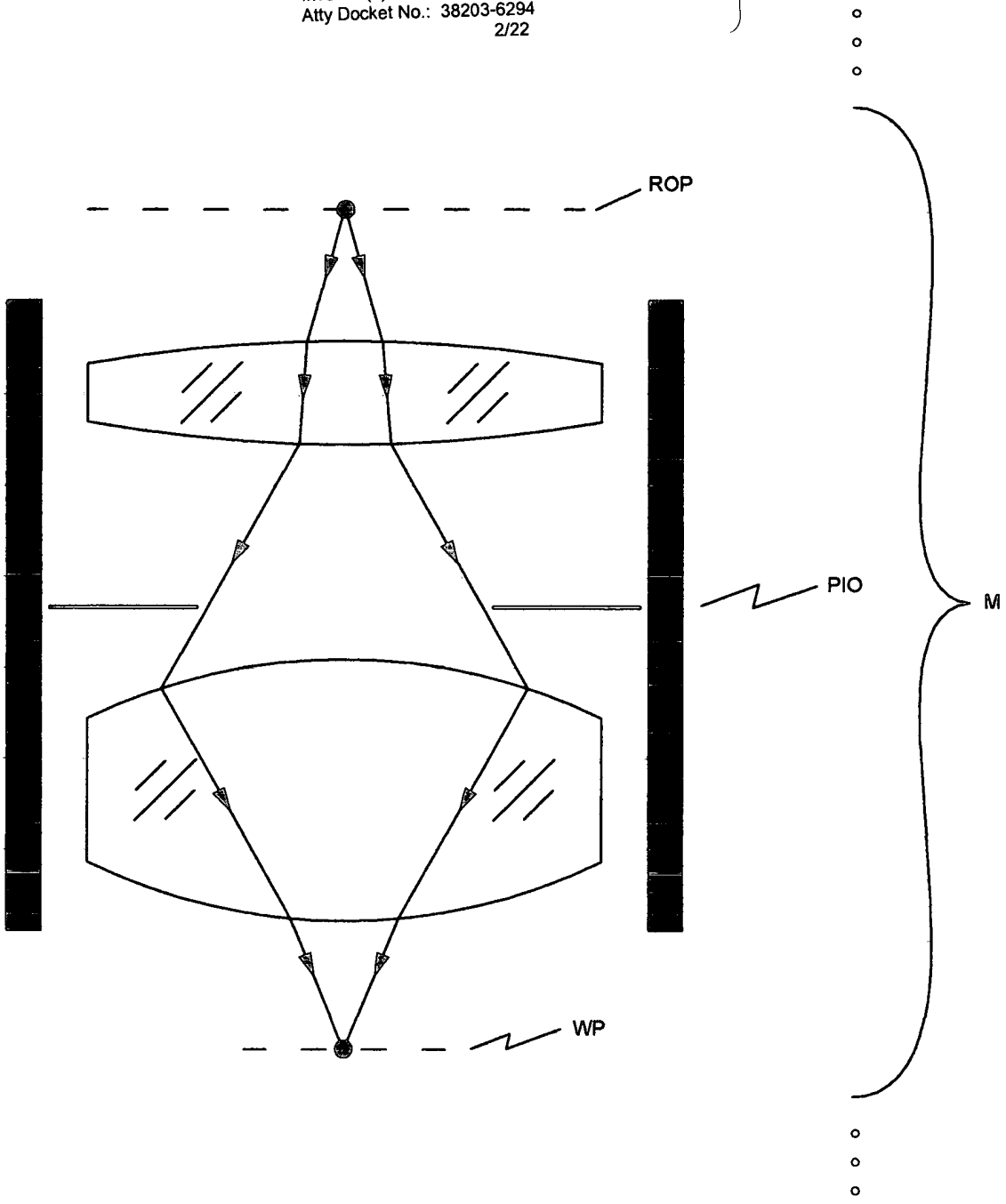


Figure 3

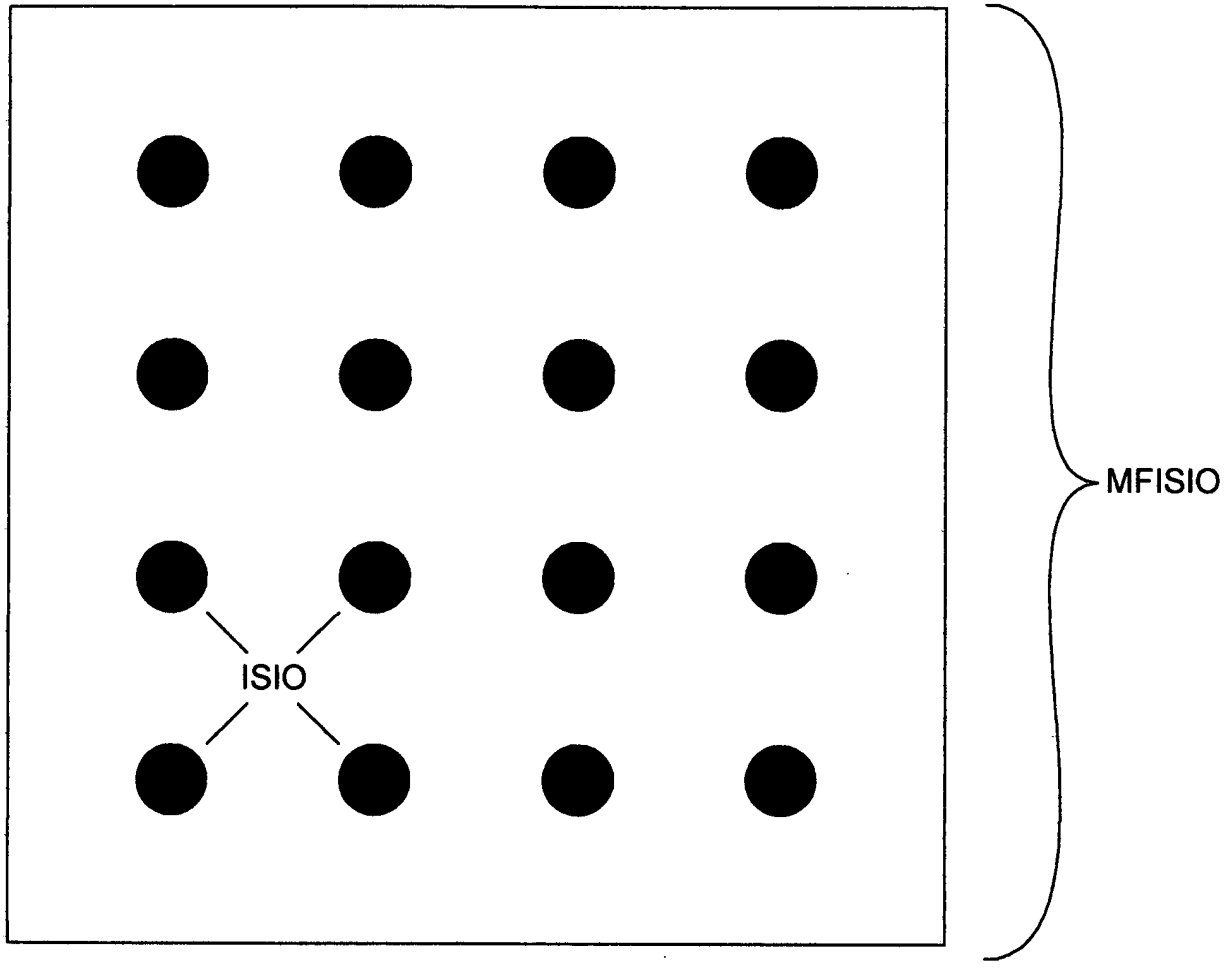


Figure 4

ARB = Axial Ray Bundle
MRB = Marginal Ray Bundle

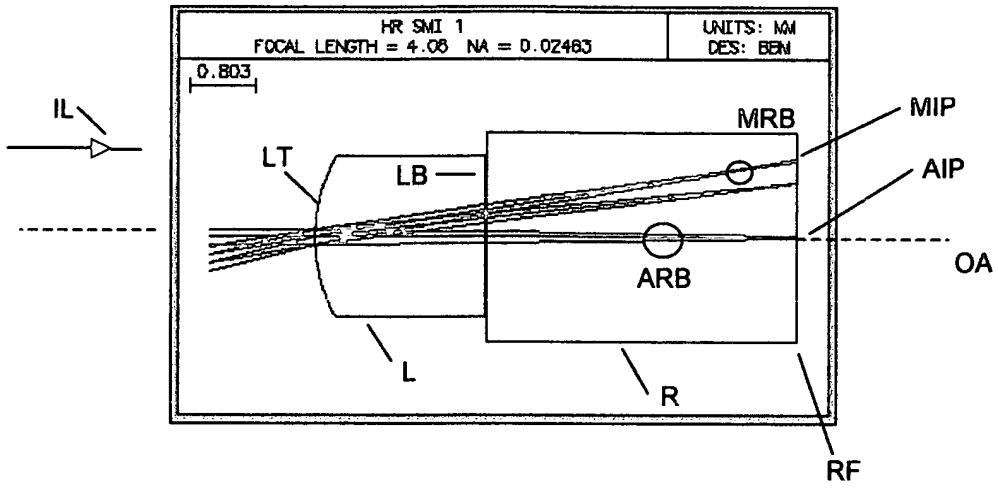


Figure 5

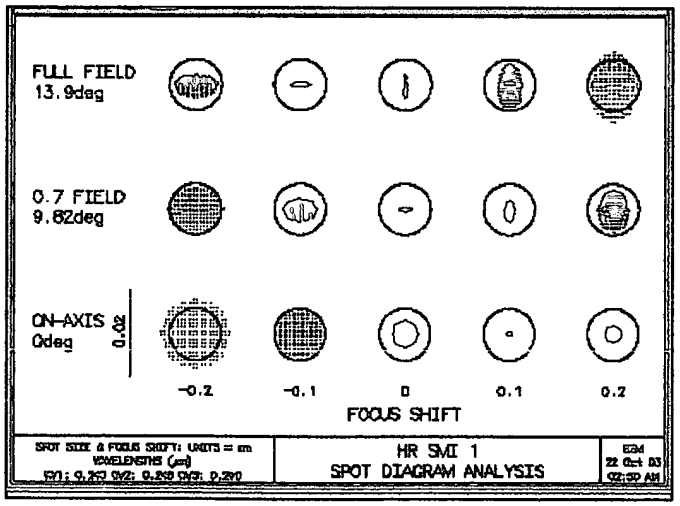


Figure 6

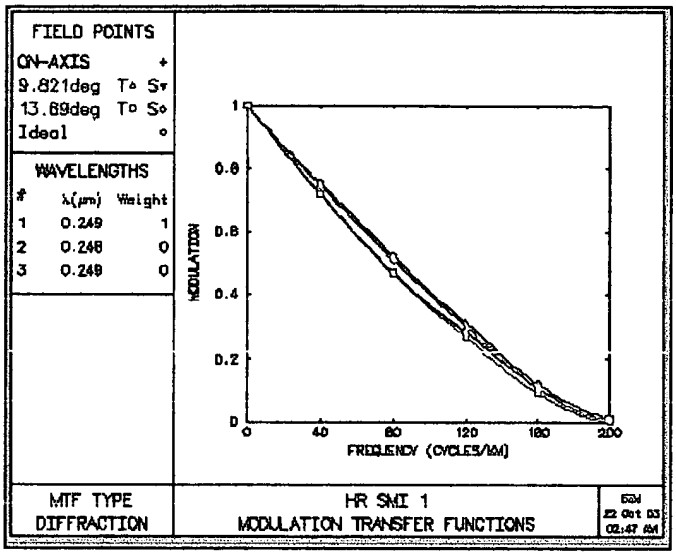


Figure 8

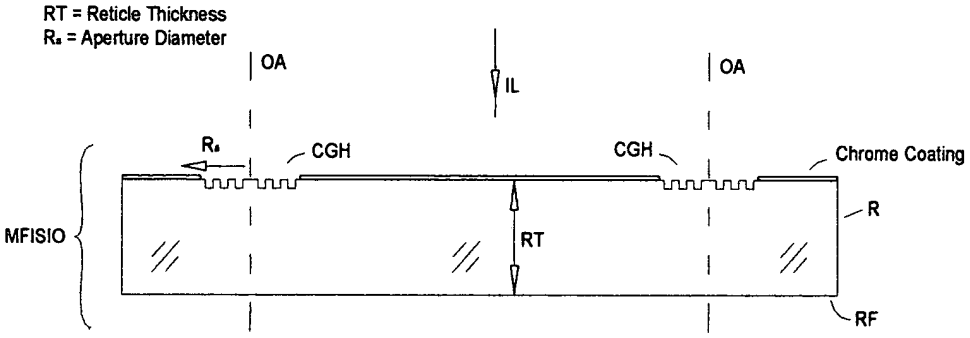


Figure 7

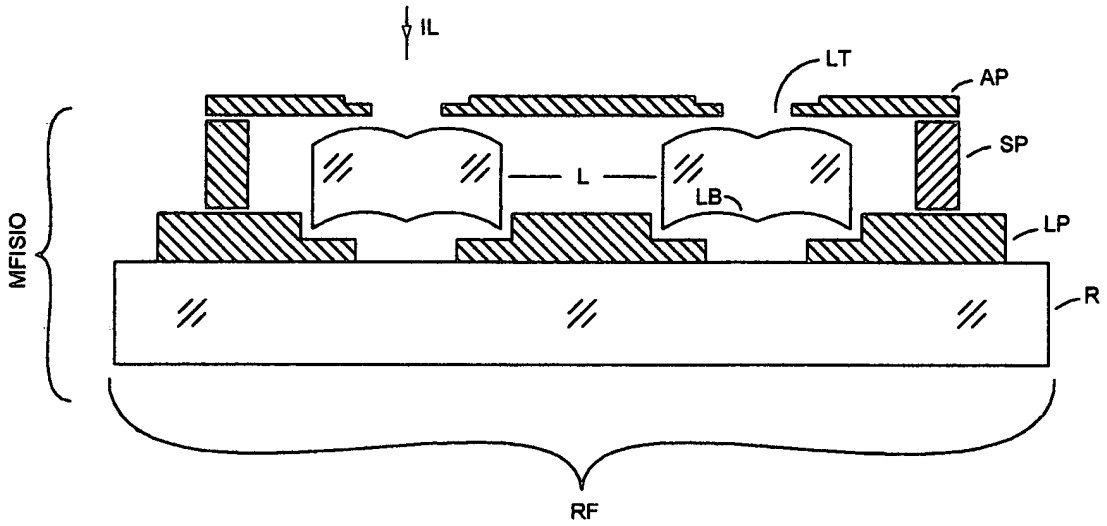


Figure 9

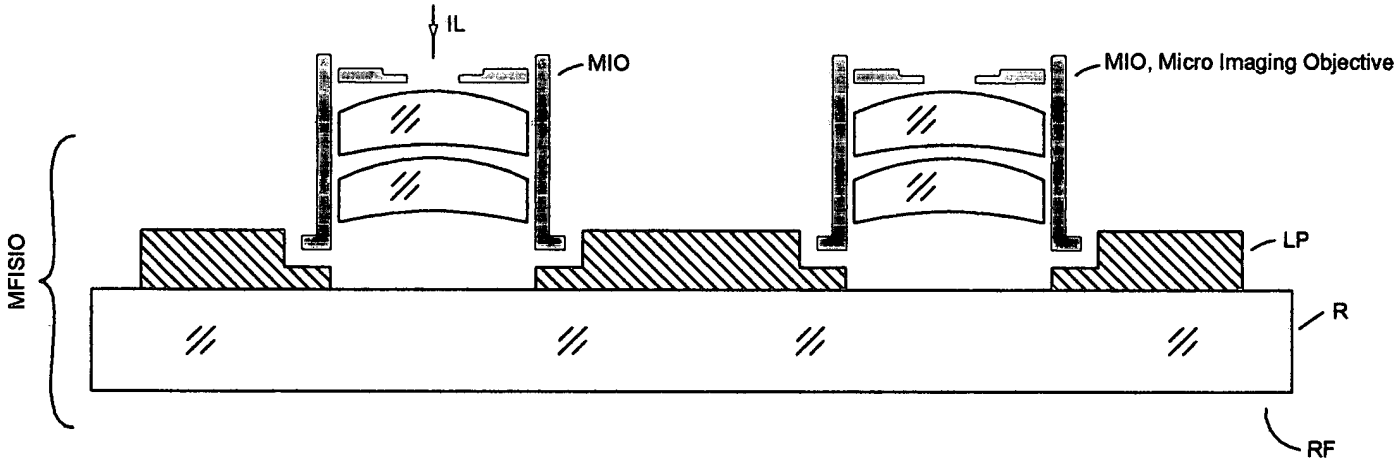


Figure 10

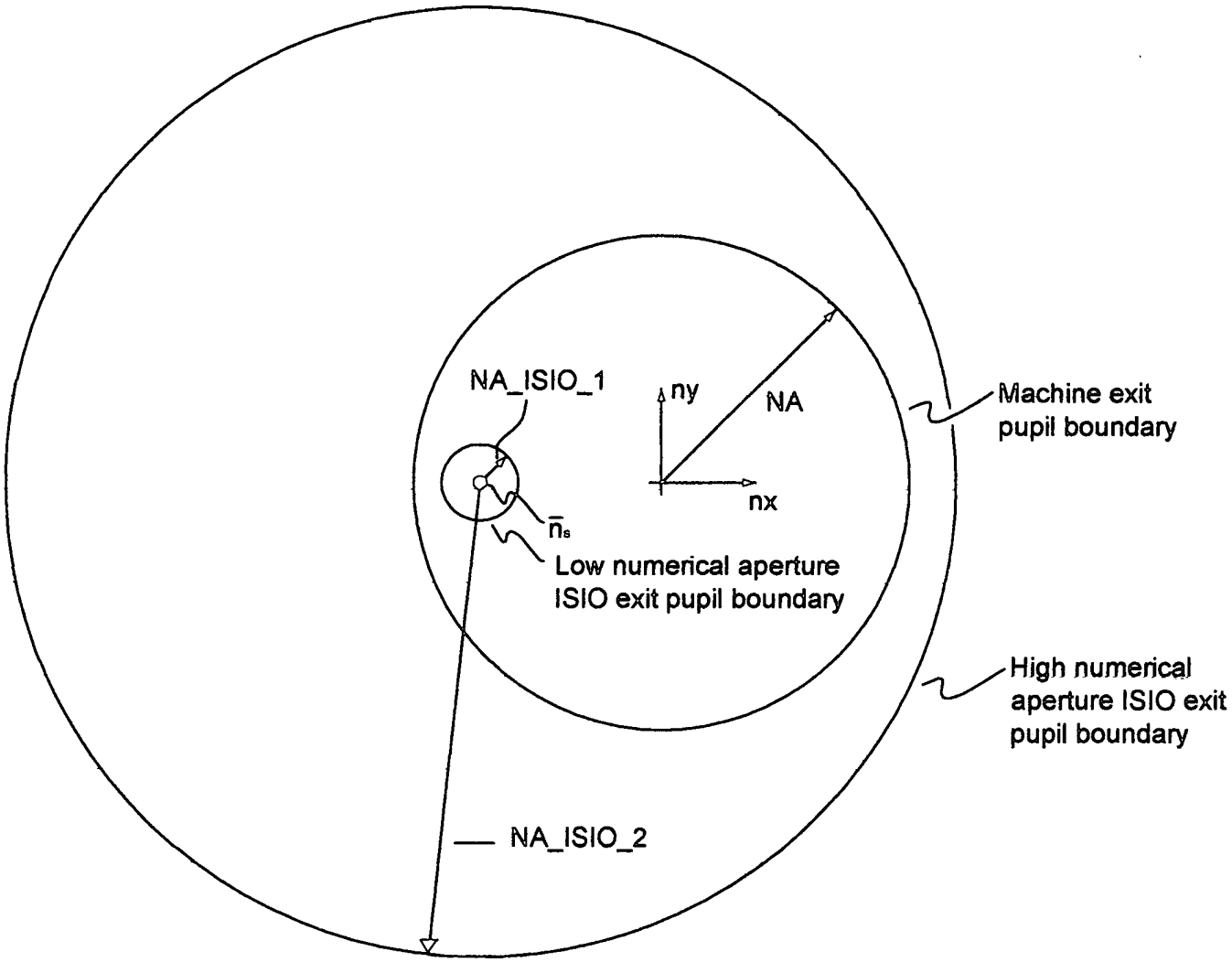

NA_ISIO_1
ny
NA
nx
$\bar{n}_s$
Low numerical aperture ISIO exit pupil boundary
Machine exit pupil boundary
High numerical aperture ISIO exit pupil boundary
NA_ISIO_2

Figure 11

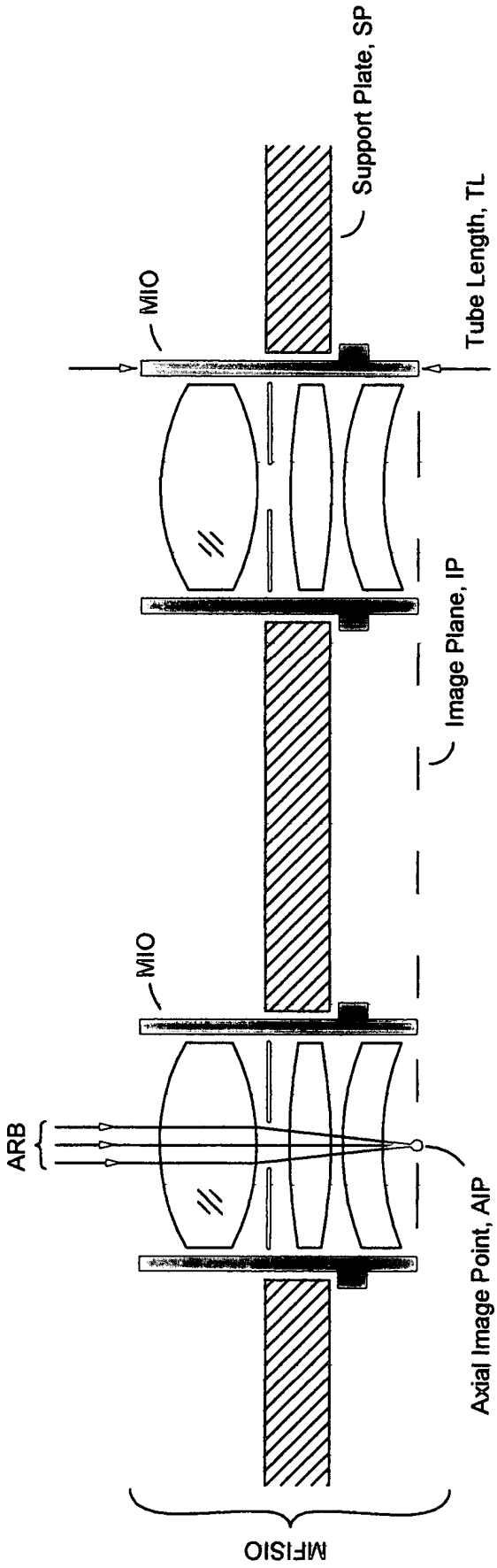

Support Plate, SP
Tube Length, TL
MIO
Image Plane, IP
MIO
ARB
Axial Image Point, AIP
MFISIO

Figure 12

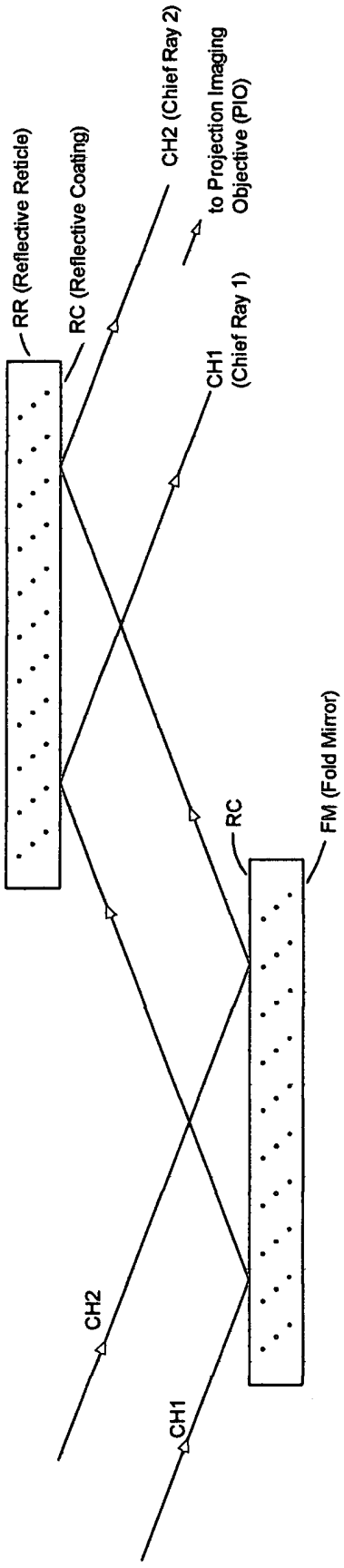

RR (Reflective Reticle)
RC (Reflective Coating)
CH2 (Chief Ray 2)
to Projection Imaging Objective (PIO)
CH1 (Chief Ray 1)
RC
FM (Fold Mirror)
CH2
CH1

Figure 13

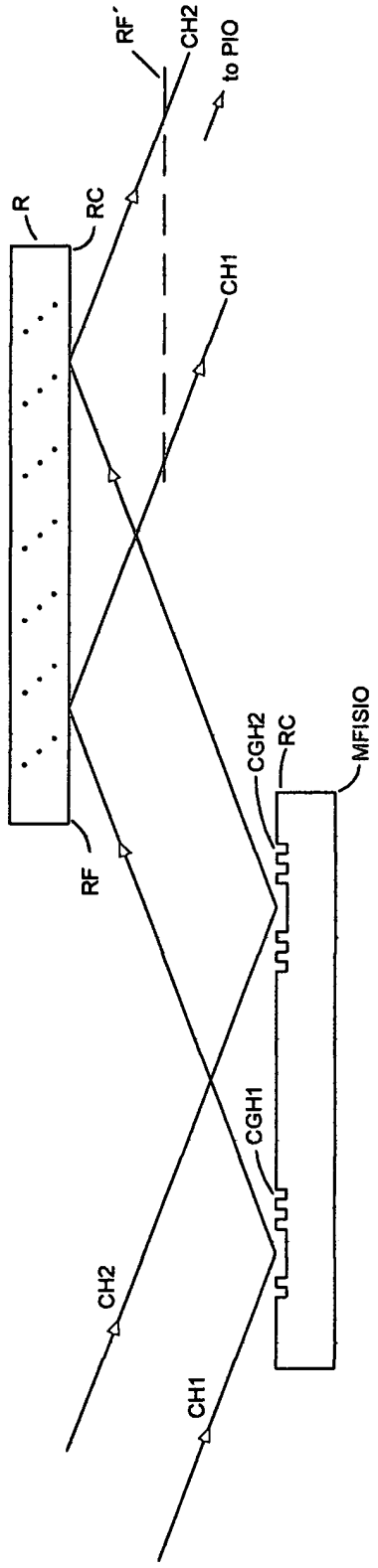


Figure 14

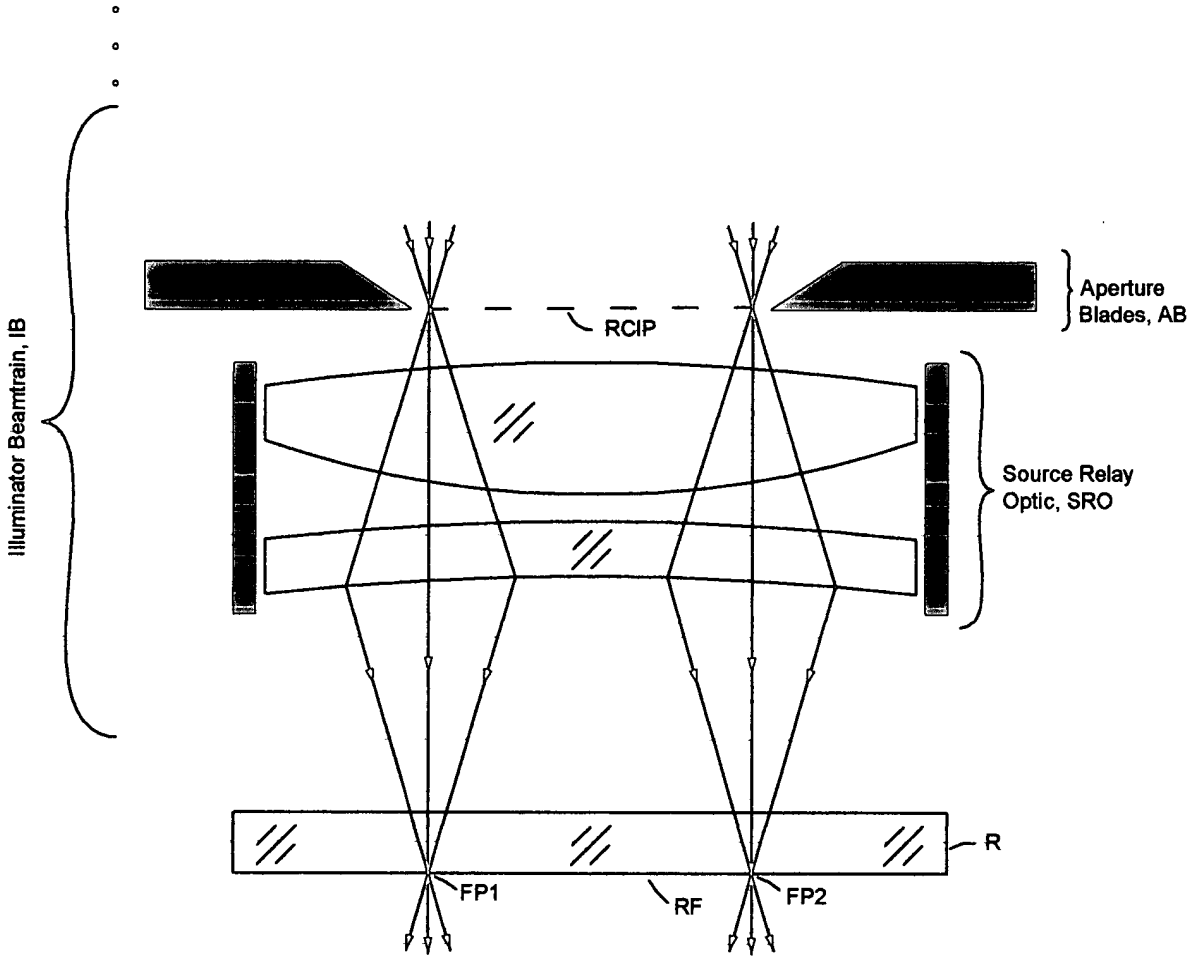

Illuminator Beamtrain, IB
RCIP
Aperture Blades, AB
Source Relay Optic, SRO
R
FP1
RF
FP2

Figure 15

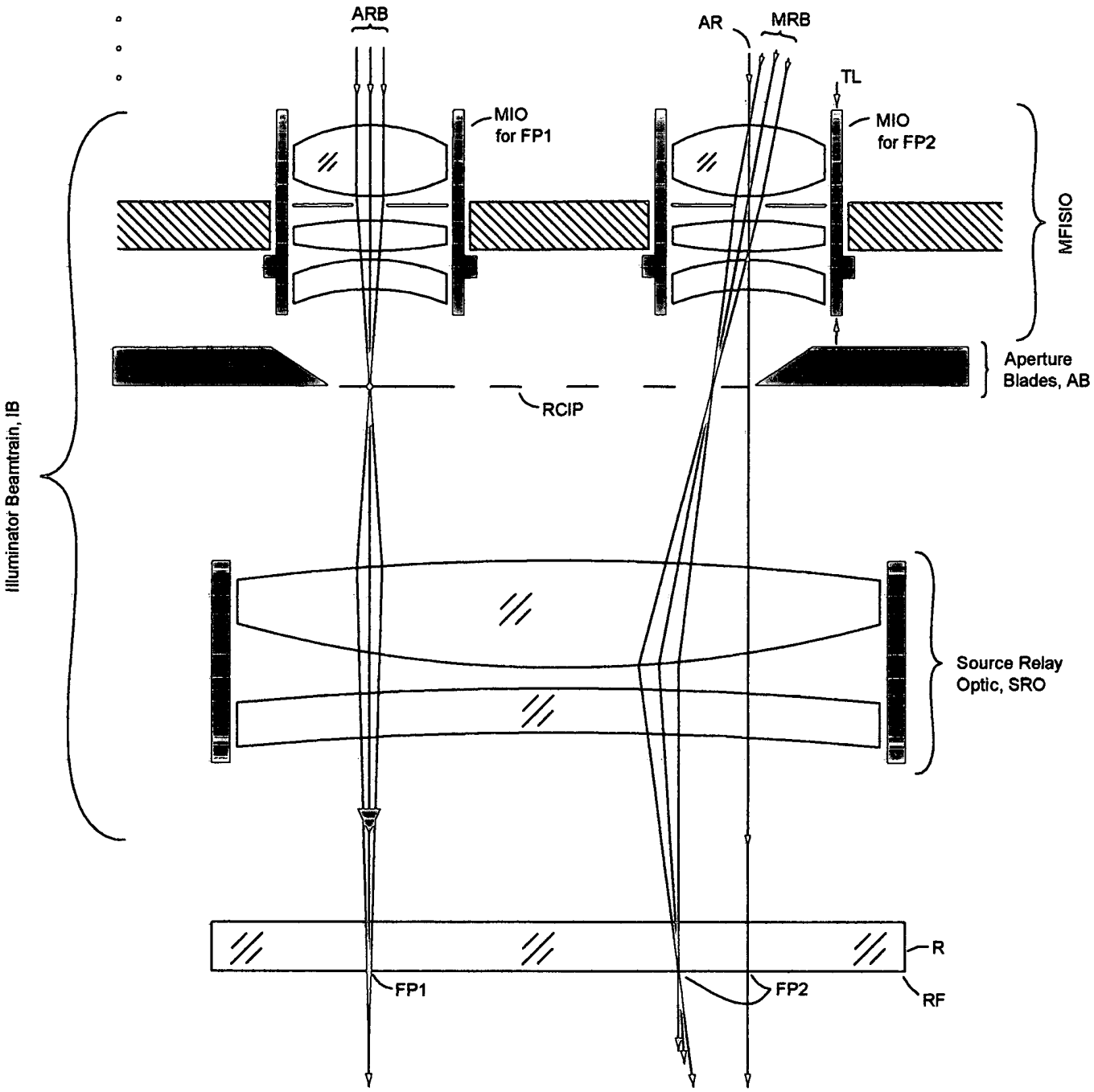

ARB
AR
MRB
TL
MIO
for FP1
MIO
for FP2
MFISIO
Aperture
Blades, AB
RCIP
Illuminator Beamtrain, IB
Source Relay
Optic, SRO
R
FP1
FP2
RF

Figure 16

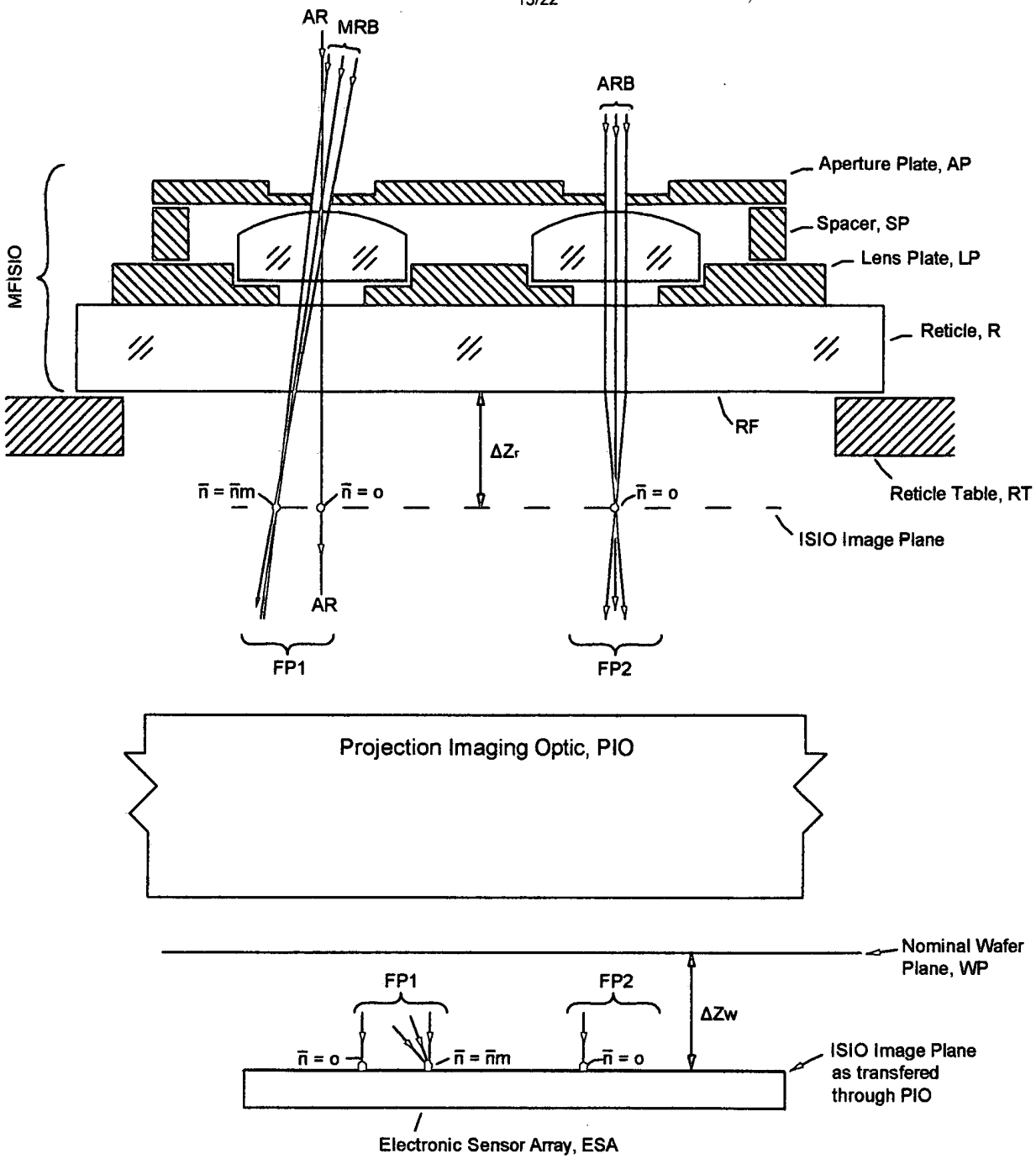

AR
MRB
ARB
Aperture Plate, AP
Spacer, SP
Lens Plate, LP
MFISIO
Reticle, R
RF
ΔZr
Reticle Table, RT
n̄ = n̄m
n̄ = o
n̄ = o
ISIO Image Plane
AR
FP1
FP2
Projection Imaging Optic, PIO
Nominal Wafer Plane, WP
FP1
FP2
ΔZw
n̄ = o
n̄ = n̄m
n̄ = o
ISIO Image Plane as transfered through PIO
Electronic Sensor Array, ESA

Figure 17

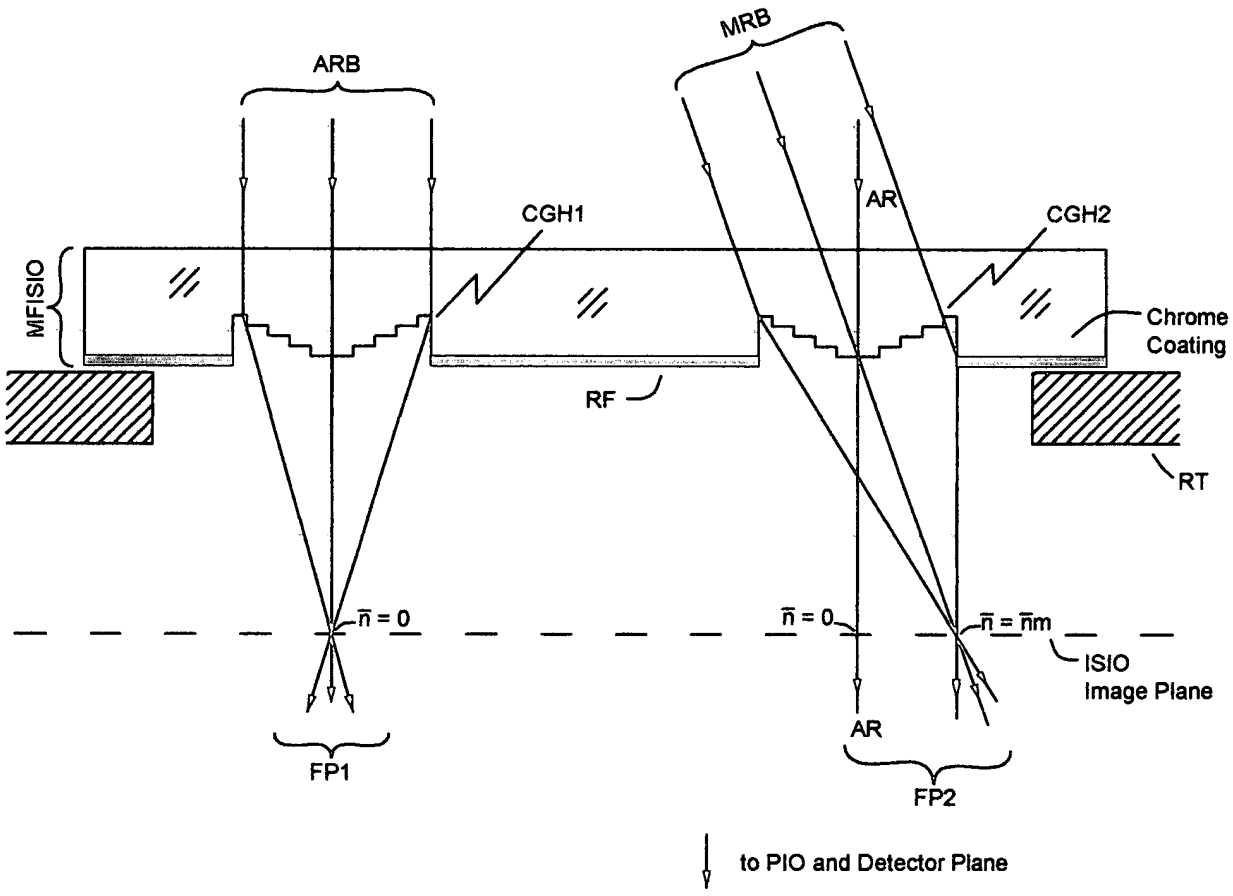

MRB
ARB
AR
CGH1
CGH2
MFISIO
Chrome Coating
RF
RT
$\bar{n} = 0$
$\bar{n} = 0$
$\bar{n} = \bar{n}m$
ISIO Image Plane
AR
FP1
FP2
to PIO and Detector Plane

Figure 18

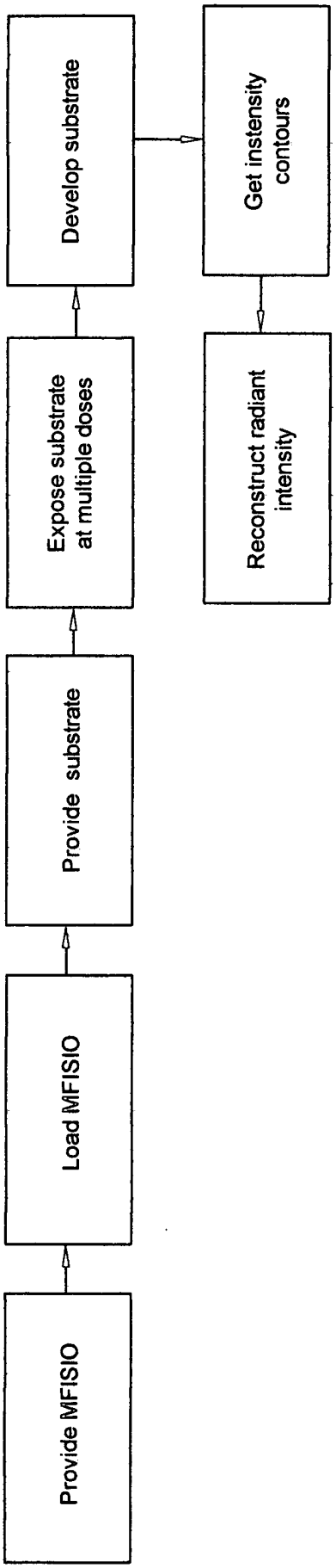

Provide MFISIO
Load MFISIO
Provide substrate
Expose substrate at multiple doses
Develop substrate
Get instensity contours
Reconstruct radiant intensity

Figure 19

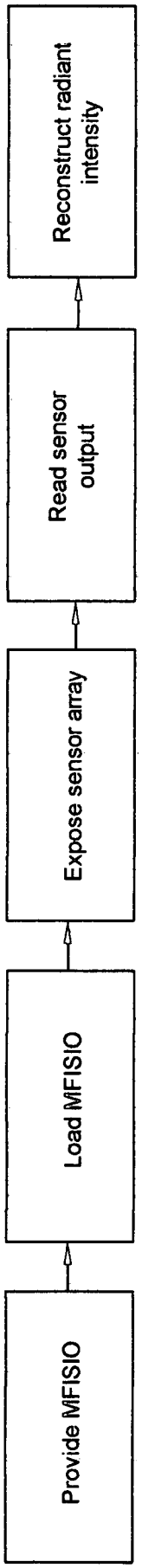

Provide MFISIO
Load MFISIO
Expose sensor array
Read sensor output
Reconstruct radiant intensity

Figure 20

x	y	nx	ny	$\frac{1}{N}\frac{dE}{do}$ (nx, ny, x, y)
-10	0	-.6	-.6	0
-10	0	-.6	-.5	0.01
°	°	°	°	°
°	°	°	°	°
°	°	°	°	°
10	0	+.6	+.6	0

Figure 21

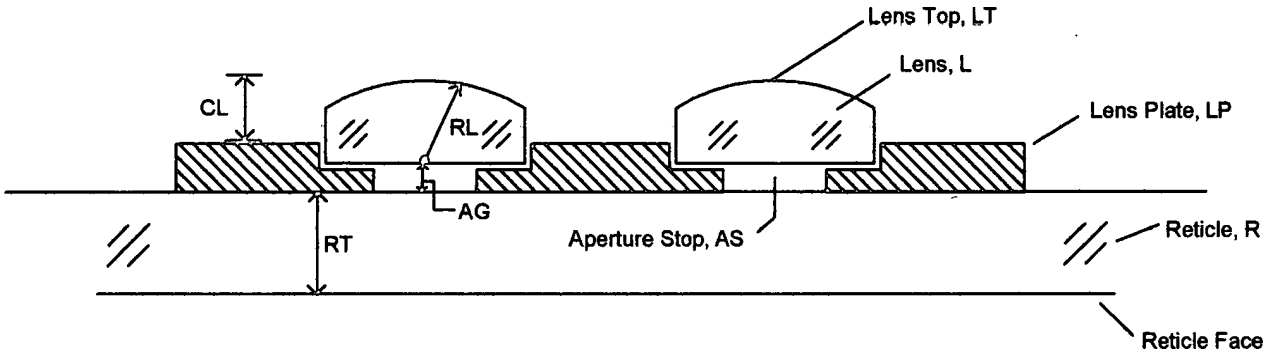

Lens Top, LT
Lens, L
Lens Plate, LP
CL
RL
AG
RT
Aperture Stop, AS
Reticle, R
Reticle Face

Figure 22

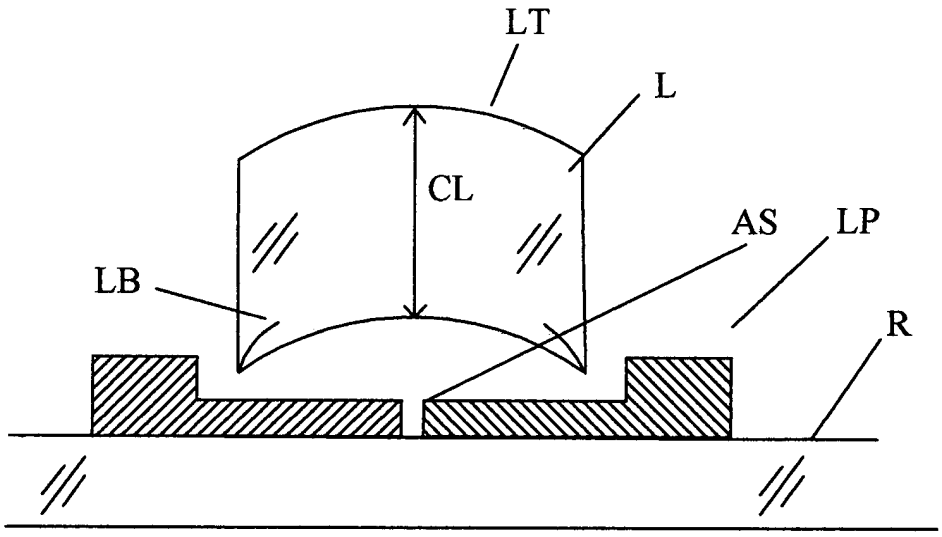


Figure 23

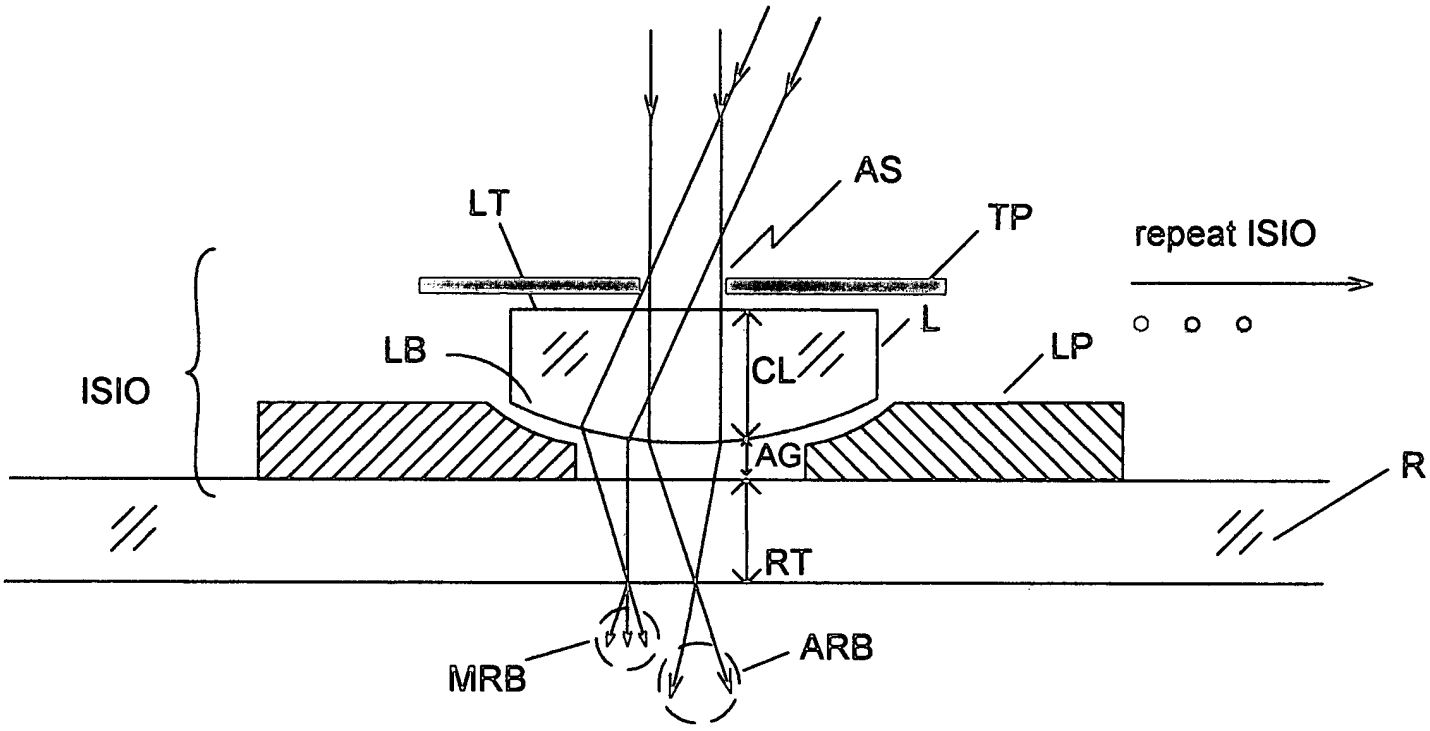


Figure 24

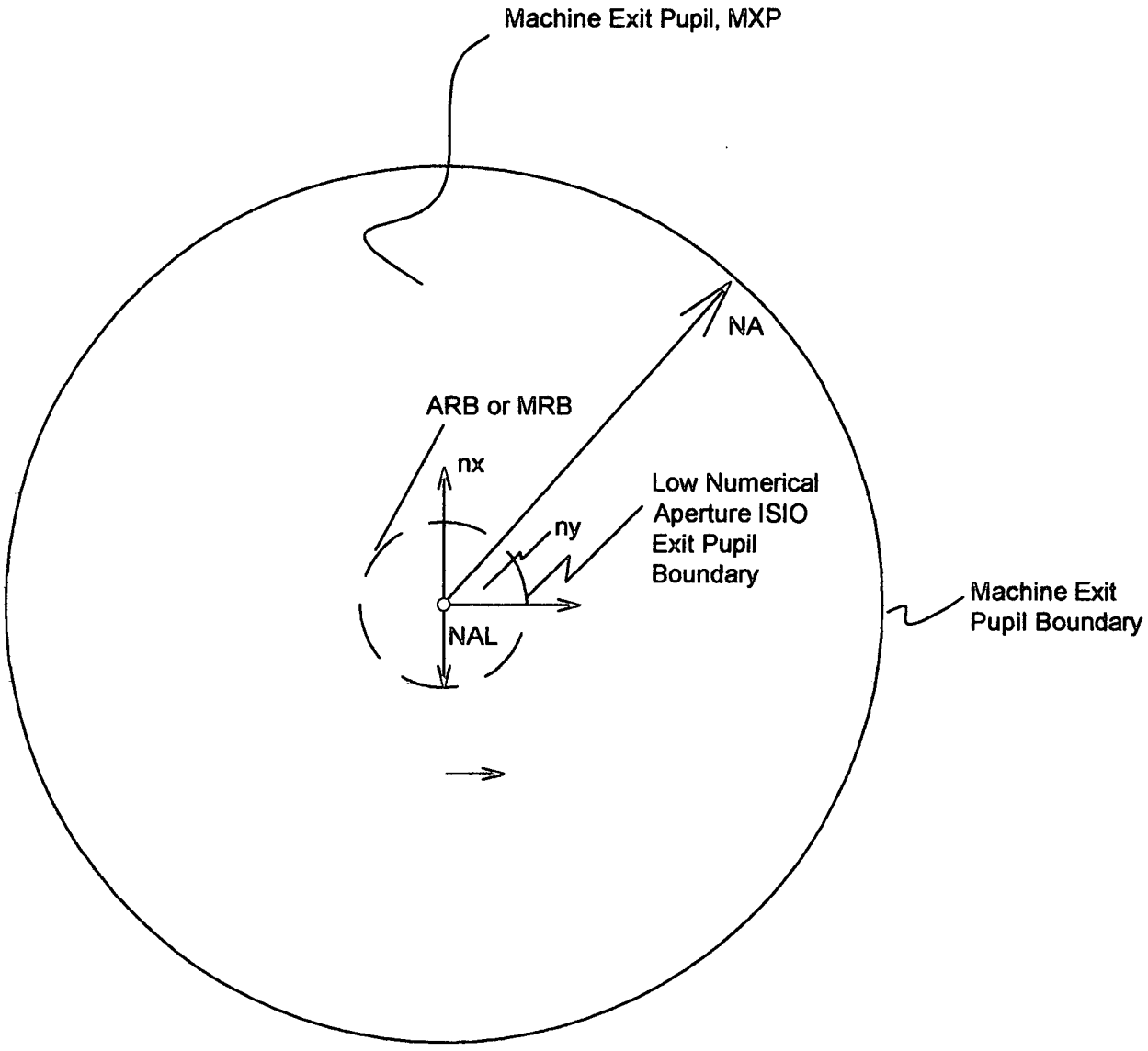

Machine Exit Pupil, MXP
NA
ARB or MRB
nx
ny
Low Numerical Aperture ISIO Exit Pupil Boundary
NAL
Machine Exit Pupil Boundary

Figure 25

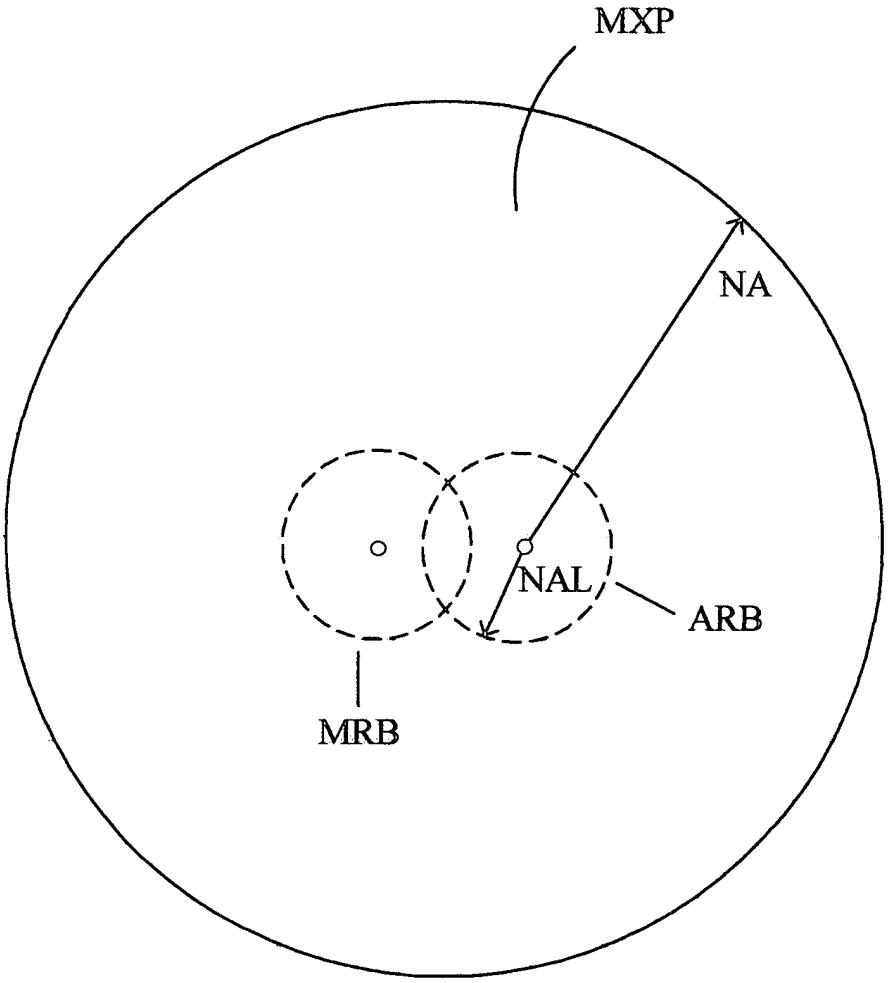


Figure 26